

### Claims

1. An airbag assembly with a mechanism for a "stationary" driver's airbag, i.e., a driver's airbag that does not rotate with the steering wheel, wherein said airbag assembly is realized in such a way that the mechanism is situated within the steering column.
2. The airbag assembly according to Claim 1, wherein the mechanism divides the steering shaft into 2 regions in such a way that the center of gravity lies in the region of the connection of the car body in order to maintain vibrations at a minimum.
3. The airbag assembly according to Claims 1 and 2, wherein a mounting option that is stationary referred to the steering shaft tube is situated between the two steering shaft halves.
4. The airbag assembly according to Claim 3 with such a stationary mounting option that it accommodates the airbag with a connecting tube.
5. The airbag assembly according to Claim 3 with such a stationary mounting option that a connecting gear between the upper and the lower steering shaft tube is mounted at this location or is connected to the upper and the lower steering column shaft from this location.
6. The airbag assembly according to one of the preceding claims, wherein the upper and the lower steering shaft are alternatively arranged adjacent to one another, particularly in accordance with Figures 1a, b, c or 16a, b, c.
7. The airbag assembly according to Claim 6, wherein the steering column shafts are realized in such a way that they are supported in a common housing.
8. The airbag assembly according to Claim 7, wherein the connection between the two steering column halves is realized with the aid of gearwheels, particularly in accordance with Figures 1a, b, c.
9. The airbag assembly according to Claim 7, wherein the connection between the two steering column halves is realized with the aid of a chain, particularly in accordance with Figures 16a, b, c or 17a, b, c.
10. The airbag assembly according to one of Claims 6-9, wherein the airbag is supported on a "tube" that is open on the bottom, particularly in accordance with Figures 1a, b, c or 16a, b, c.
11. The airbag assembly according to one of Claims 6-10, wherein the airbag and the steering shaft are supported in a common housing.
12. The airbag assembly according to one of the preceding claims, wherein the leadthrough of the cables for the airbag and preferably an alternative "multifunctional steering wheel" is realized through the tube that carries the airbag.
13. The airbag assembly according to one of the preceding claims, wherein the [text missing] are directly connected by means of gearwheels in such a way that the second steering

column shaft moves opposite to the first steering column shaft, particularly in accordance with Figures 2a, b, c.

14. The airbag assembly according to one of the preceding claims, wherein the steering shaft tubes are connected to gearwheels and an intermediate gear in such a way that both steering shafts rotate in the same direction, particularly in accordance with Figures 3a, b, c.

15. The airbag assembly according to one of the preceding claims, wherein the steering gear of the steering column mechanism is realized in such a way that the opposite movement of the steering wheel and the steering column is once again compensated, particularly in accordance with Figures 5a, b, c.

16. The airbag assembly according to one of the preceding claims, wherein the existing/conventional steering gear can be utilized because the steering column according to Claim 14 rotates in the same direction as the steering wheel, particularly in accordance with Figures 4a, b, c.

17. The airbag assembly according to one of the preceding claims, wherein the connecting gear between the upper and the lower steering shaft is realized in such a way that the angle of rotation and the rotating direction of both steering shafts may, depending on the respective requirements, be identical or not, particularly in accordance with Figures 6a, b, c.

18. The airbag assembly according to Claim 17, wherein the connecting gear is realized in such a way that it is homogenously accommodated in the "interior" of the steering shaft or therebetween without requiring additional space.

19. The airbag assembly according to Claim 18, wherein the gear housing is realized in such a way that it is stationarily mounted in the steering column housing, particularly in accordance with Figures 6a, b, c.

20. The airbag assembly according to one of Claims 17-19, wherein the steering column housing is realized in such a way that it carries the airbag by means of a molded tube.

21. The airbag assembly according to Claim 20, wherein the molded tube is realized in such a way that it serves as a cable leadthrough.

22. The airbag assembly according to Claim 18, wherein the gear is realized in such a way that the upper and the lower steering shaft respectively feature a "sun gear" on the outer end.

23. The airbag assembly according to Claim 22, wherein the gear is realized in such a way that the sun gears are connected by means of planet gears on an axle supported in the stationary gear housing.

24. The airbag assembly according to Claim 22 or 23, wherein the gear is alternatively realized in such a way that the planet gear of the "lower" steering shaft meshes with the sun gear of the upper steering shaft, particularly in accordance with Figures 7a, b, c, and, in order to realize a simple design, preferably results in opposite rotating directions of the two steering

shafts and a faster rotational speed of the lower steering shaft relative to the upper steering shaft and/or on the front axle in a steering gear of novel design that can be easily manufactured.

25. The airbag assembly according to one of Claims 22-24, wherein the gear is realized in the sun gears and planet gears in such a way that the tube carrying the airbag can be led through therebetween with its cable leadthrough, particularly in accordance with Figures 8a, b, c.

26. The airbag assembly according to one of Claims 1-5, wherein the connecting gear is realized in such a way that the upper and the lower steering shaft are provided with bevel gears on their ends, particularly in accordance with Figures 10a, b, c.

27. The airbag assembly according to Claim 26, wherein the connecting gear is realized in such a way that the two bevel gears are connected to an additional bevel gear that is stationarily mounted or supported in the steering column tube, with the steering shafts rotating, in particular, with identical rotational speeds, and wherein the steering shafts preferably rotate in opposite directions and the steering gear is realized accordingly, particularly in accordance with Figures 10a, b, c.

28. The airbag assembly according to Claim 27, wherein the gear is realized in such a way that an additional bevel gear engages into the bevel gear of the lower steering shaft with a 180 degree offset, particularly in accordance with Figures 11a, b, c, and wherein the rotating directions of the upper and the lower steering shaft are preferably identical.

29. The airbag assembly according to one of Claims 12-5, wherein the connecting gear is realized in such a way that the stationary gear between the two steering shafts positions the connecting shaft with its gearwheels laterally, particularly in accordance with Figures 12a, b, c, and wherein the rotating directions of the steering shafts and the angles of rotation consequently are once again identical.

30. The airbag assembly according to one of the preceding claims, wherein the connecting gear is realized in such a way that a servo mechanism for adapting the steering force can be flanged on at this location, particularly in accordance with Figures 13a, b, c and preferably without requiring a special gearing such that two gearwheels can be eliminated.

31. The airbag assembly according to one of the preceding claims, wherein the connecting gear is realized in such a way that the transmission between the upper and the lower steering shaft is adapted in a speed-dependent and/or steering angle-dependent fashion.

32. The airbag assembly according to one of the preceding claims, wherein the airbag support tube, particularly according to Claims 20 and 21, is realized in such a way that it accommodates another telescope-like tube section supported in springs.

33. The airbag assembly according to Claim 32, wherein the telescopic tubes are realized in such a way that they serve for accommodating contacts of the horn mechanism in an insulated fashion, particularly in accordance with Figures 15a, b, c.

34. The airbag assembly according to one of the preceding claims, wherein the housing halves, particularly according to Claim 8, are realized in such a way that they are suitable for accommodating a chain tightener.

35. The airbag assembly according to Claim 33, wherein the housing halves are realized in such a way that their position can be varied by means of left-hand/right-hand threads, namely such that the connecting chain has "no play," particularly in accordance with Figures 16a, b, c or 17a, b, c.

36. An airbag assembly with a stationary airbag mechanism that is realized in such a way that the stationary steering column tube creates a connection for the stationary airbag on a correspondingly bent tube, particularly in accordance with Figures 18a, b, c or 19a, b, c.

37. The airbag assembly according to Claim 36, wherein the stationary steering column tube is realized in such a way that a connecting gear between the steering wheel and the steering shaft is also supported therein, particularly in accordance with Figures 18a, b, c.

38. The airbag assembly according to Claim 36 or 37, wherein the stationary steering column tube is realized in such a way that a special steering wheel is rotatably supported thereon, particularly in accordance with Figures 18a, b, c.

39. The airbag assembly according to Claim 38, wherein the special steering wheel is realized in such a way that a sun gear is integrated into or mounted on the lower rotating assembly.

40. The airbag assembly according to one of the preceding claims, wherein the steering column shaft, particularly in accordance with Figures 18a, b, c, is realized in such a way that a "sun gear" is arranged on its upper end.

41. The airbag assembly according to one of the preceding claims, wherein a connecting shaft, particularly in accordance with Claim 37, with one respective planet gear on its ends is realized in such a way that one planet gear meshes with the sun gear of the steering wheel and the other planet gear meshes with the sun gear in the steering shaft.

42. The airbag assembly according to one of Claims 39-41, wherein the connecting gear is designed in such a way that the 180 degree opposite engagement of the planet gear into the sun gear of the steering shaft results in identical rotating direction of the steering wheel and the steering shaft.

43. The airbag assembly according to one of Claims 37-42, wherein the connecting gear is realized in such a way that the steering wheel and the steering shaft have identical angles of rotation and identical rotational speeds, and wherein the transmission ratio between the sun gear on the steering wheel and its planet gear may, in particular, be identical to the transmission between the sun gear on the steering shaft and the corresponding planet gear.

44. The airbag assembly according to one of the preceding claims, wherein the connecting gear is realized with such a transmission between the sun gears and planet gears that the desired deviation between the rotational speeds of the steering wheel and the steering shaft is achieved.

45. The airbag assembly according to one of Claims 36-44, wherein the connecting gear is alternatively realized with 2-4 gearwheel sets, particularly in accordance with Figures 20a, b, c, so as to alleviate the load on the single gearwheel set shown in Figures 18a, b, c or 19a, b, c, and wherein the steering wheel and the steering shaft are preferably forced to rotate in opposite directions.

46. A gear for an airbag assembly according to one of the preceding claims.

47. An operating method for an airbag assembly according to one of the preceding claims.